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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,973	01/06/2006	Kenji Obora	Q91892	7322

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EXAMINER	
TORRES VELAZQUEZ, NORCA LIZ	
ART UNIT	PAPER NUMBER
1794	
MAIL DATE	DELIVERY MODE
08/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,973	OBORA ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 16, 2008 has been entered.

Response to Amendment

2. The Specification provides support of a breaking elongation of 70 to 180% (pages 2 and 3). Claim 1 has been amended to now claim a range of 70-**80**%. It is noted that the Specification does not show evidence that the now claimed range of breaking elongation is critical.

Claim Rejections – 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as obvious over Yasui, et al (JP 03-137239 A).**

Yasui teaches a tire cord fabric characterized by fluid jet textured yarns that consist of core yarns and sheath yarns of polyester, that have loops and saggings. The rupture elongation

of the fabric is no less than 100%, (Claim 1). A yarn formation example includes a first twist and a second twist, (Page 12, Paragraph 3). Another yarn formation example results in a primary yield point of 0.72-g·den^{-1}, (Page 13, Paragraph 3). With a 260-denier, the strength of this yarn is 187.2-g·f. The conversion of 187.2-g·f to N·f is 1.8-N·f, less than the 2.0 N maximum specified for the yield strength. The reference teaches polyamide and polyester yarns for tire reinforcing fabrics, (Page 3, Paragraph 6). The reference teaches an overfeeding ratio between 8 and 40%. (Refer to Page 7, second paragraph) It is noted that the reference uses a high-speed spinning method to manufacture the yarn. The reference further teaches that by controlling the conditions of overfeed between the sheath yarn and the core yarn, the desired rupture elongation of at least 100% and to also stabilize the weaves of the fabric is achieved. The reference also teaches that the degree of interlacing between the filaments has an effect on the elongation of the yarn. (Refer to pages7-9)

It is well settled that determination of optimum values of cause effective variables such as breaking elongation is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). In this case, the prior art of record while showing that a rupture elongation of at least 100% is desirable in their invention, shows that variables such as controlling the overfeed between the sheath yarn and the core yarn and also the degree of interlacing between teh filaments have an effect on the rupture elongation.

Further, it is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)

5. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasui, et al. (JP 03-137239 A) in view of Glass, et al. (US 3677318 A).**

Yasui teaches polyester and polyamide fiber-forming polymers for tire reinforcement fabrics, but lack poly(vinyl alcohol).

Glass teaches a list of acceptable materials for analogous fabric including polyester, polyamide, and poly(vinyl alcohol), (Column 2, Lines 19-20).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include poly(vinyl alcohol) {Glass} as suitable materials for the specific tire cord reinforcement fabric {Yasui}. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle," see *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). The motivation would have been for the mechanical properties and performance when woven and molded, ({Glass} Column 2, Lines 16-33). Therefore, it would have been obvious to combine Yasui with Glass and obtain the invention as specified.

Response to Arguments

6. Applicant's amendment and arguments May 16, 2008 have been fully considered but they are not persuasive.

Applicant alleges that the manufacturing process is different and yields patentably distinct properties, it is argued that the in the present invention the textured yarns of core and sheath with loops and sagging are woven and not dried after the difference of the over-feeding rate of the core and sheath is determined to be 1 to 50%, and the two feeding fluid jet textured process is conducted.

As previously stated, the section that applicant appears to base his argument of a different process appears to be ({Yasui} Page 8 Paragraphs 1-2), stating that after the combination of core and sheath yarns, a "dry-heat treatment" is applied to improve the handling properties of the yarn. Semantically, a "dry-heat" treatment can be interpreted differently than being "dried," which can imply a heat-until-dry treatment. Yasui merely teaches a heating treatment that can be construed as dry heat rather than moist heat. Regardless, both inventions are treated with heat ostensibly to cure the rubber matrices ({Yasui} Page 12 Paragraph 4 | {Applicant} [0026]). Further, both inventions are woven after constructing the core/sheath yarns and dried after applying the rubber ({Yasui} Embodiment 1 | {Applicant} Example 1). Applicant alleges that the yield point of the weft yarn increases upon drying, which may or may not be true for either Yasui or Applicant. Without unexpected comparative results, this allegation is unsubstantiated, and because both the process and products appear substantially identical this argument is unpersuasive. Contrary to arguments, the processes and products appear to be substantially identical and unpatentable as claimed; see *In re Schreiber*, 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed.Cir.1997). The prior art is found to disclose each chemical and structural feature instantly claimed, therefore it must meet the property requirement specified, otherwise, applicant's claim is incomplete. Note ex parte SLOB (157 USPQ 172) which supports this position.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Norca L. Torres-Velazquez/
Primary Examiner, Art Unit 1794

August 1, 2008